National Park Service U.S. Department of the Interior

Jefferson National Expansion Memorial 11 North Fourth Street St. Louis, MO 63102



Lewis and Clark Expedition Teacher Activity Guide Grades 3-5





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LEWIS AND CLARK EXPEDITION

PROGRAM DESCRIPTION

This forty-five minute museum program focuses on the different aspects of the "Corps of Discovery," commonly referred to as The Lewis and Clark Expedition. Occurring during the beginning of the nineteenth century, from 1804-1806, the expedition was sent out by President Thomas Jefferson to explore the Missouri River and find a suitable commerce and transportation route to the Pacific Ocean. This well known trip was the first exploration by the United States of the newly purchased Louisiana Territory and began the busy period of our country's westward expansion.

Upon arrival at Jefferson National Expansion Memorial, the park ranger assigned to your program will divide your group into task groups and randomly assign each student a name of one of the actual expedition members—as described in "The Museum Experience" section of this Teacher Activity Guide (TAG). This will prepare them for the program in the museum in which each "task group" will make decisions based on the experiences of the Corps of Discovery.

In addition to the cooperative learning activity, the park ranger will use museum exhibits, including photomurals, the beaver pond, the bison, replica items from the living history collection, and mounted pictures to present a more thorough picture of the Corps of Discovery and their mission of exploration. Teachers and students are then encouraged to use POST-VISIT ACTIVITIES suggested in this guide to complete the program package.

CURRICULUM OBJECTIVES

The following tested objectives for the states of Missouri and Illinois, as well as National Standards for History and Social Studies, are addressed in this program and guide.

- Communicate effectively and work with others. (ILS 4, 21; MAP 2.3, 4.6; NCSS IVh)
- Construct and analyze timelines. (ILS 16.A; MAP 1.8; NCSS IIb; NSH 1E, 1F)
- Construct basic maps and locate specific features. (ILS 4.B, 17.A; MAP 1.8, 2.1; NCSS IIIb)
- Explore career opportunities in national parks. (ILS 18.B; MAP 4.8; NCSS Vg)
- Identify and analyze responsibilities of given occupations. (ILS 18.B; MAP 1.10; 4.8; NCSS VIIe)
- Identify a cause of the westward expansion of the United States. (ILS 16.A; MAP 1.6; NCSS IIb; NSH 3H)
- Identify and analyze changes in transportation. (ILS 16.A; MAP 1.8, 2.7; NCSS IIc; NSH 2G)
- Interpret basic needs. (ILS 16.A; MAP 2.3; NCSS Ia; NSH 3C)
- Understand and analyze events shaping the history of the United States. (ILS 16.A; MAP 1.6; NCSS IIb; NSH 3H)

ILS: Illinois Learning Standards MAP: Missouri Assessment Program

NCSS: National Council for the Social Studies

NSH: National Standards for History



PRE-VISIT ACTIVITY #1 (REQUIRED)



Did you know...

Clark's completed map of the expedition's route was accurate to within 40 miles?

FOLLOW THE RIVER UPSTREAM

Many explorers of the nineteenth century, like those before, sometimes lacked even the simplest maps. If someone else had traveled into an area before them, they could talk to that person, or read notes, journals, or maps they made during their trip. Lewis and Clark consulted early maps and notes of previous explorers, but they had to use other sources too, to make it to their destination. As they traveled on the rivers, they interacted with American Indians who advised them to look for certain landmarks which could guide them along the way.

WORD WEB ACTIVITY

The visit to the Museum of Westward Expansion will focus on different aspects of the Lewis and Clark Expedition. Maps and landmarks were important to the group and made it possible for them to get to the Pacific Ocean. Divide students into pairs. Using a word web, have students brainstorm "Neighborhood Landmarks."





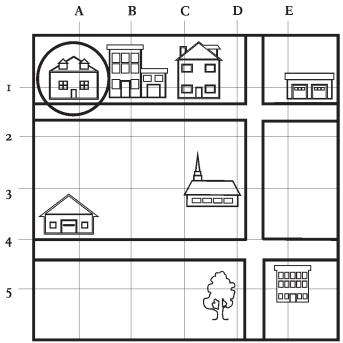
ART AND MUSIC

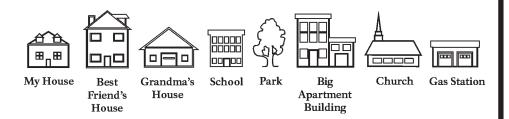


Using the little available knowledge of the West at that time and the advice of the American Indians, Lewis and Clark were able to successfully make it to the Pacific Coast. Their expedition through the American West took them across grasslands, over mountains, down rivers, and finally to the Pacific Ocean. Make a mobile of the different terrains the Corps crossed and might have encountered during their expedition. Have the students write a brief description of the area on the back of each picture.

COOPERATIVE LEARNING MAP ACTIVITY

Using this information, have one student in each pair draw a basic map (including a map legend) of their neighborhood on an 8 1/2" x 11" piece of paper indicating where their house is and special landmarks around it, such as churches, schools, gas stations, and banks. The second student should draw a grid on the map to indicate blocks and important city or county streets and roads. See the example below. In round robin fashion, have each pair present their maps to the class.





LANGUAGE ARTS



Telling yarns or stories was a way to pass winter evenings around the fire. Have students choose one member of the expedition from the nametags listed in the Appendix beginning on page 26. Then ask the students to tell a story as if they were that character, or tell a story about that character. Remember that many stories start with a fact before expanding to fiction.

EXPLORATION AND ENRICHMENT

On the Corps of Discovery return trip, John Colter, an expedition member, asked to leave the group and become a mountain man. As he returned westward, he encountered some strange natural features in an area which later became Yellowstone National Park. Have your class look at a map of Wyoming and Montana in an atlas. Locate Yellowstone and identify differences in the landscape there from where you live (plants, animals, terrain, etc.). See page 38 in the Appendix for contact information.





PRE-VISIT ACTIVITY #2 (suggested)



Did you know...

Lewis and Clark sent back live animals to President Iefferson from Fort Mandan? Four magpies, a prairie dog, and a prairie sharp-tailed grouse were sent back with Corporal Warfington. Unfortunately, only the prairie dog and one magpie survived the arduous journey.



DUGOUTS, KEELBOATS, AND HORSES

To the Corps of Discovery the rivers were often like highways, a means of getting to the next day's destination. The keelboat, pirogues, dugouts, and later horses were the vehicles they used to transport themselves and their supplies to the Pacific Ocean.

CRITICAL THINKING

During your visit to the Museum of Westward Expansion, you will see pictures of the types of transportation used by the expedition and will learn how they were used. Before steam or gasoline engines were invented, how did people get from one place to the next? How are these ways better or worse than transportation today? Discuss with the class how transportation has changed from the 1800s to the 1900s to the 2000s. What are the pros and cons of river travel versus land travel?

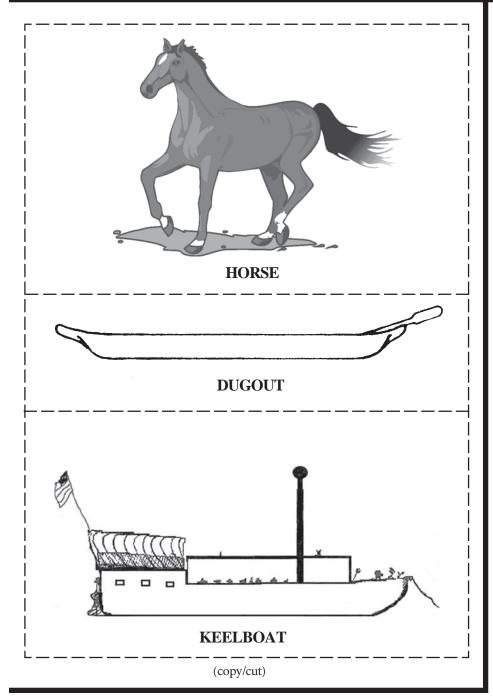
COLLABORATIVE K-W-L-S STRATEGY

Arrange students into three groups. Using the three pictured examples on the adjoining page, assign a picture to each group. Have each group member complete a K-W-L-S analysis of the picture on a piece of paper. They should write what they already KNOW about the mode of transportation and what they WANT to know about it. Each member should then share this information with their group. Next, have each member write what they LEARNED about the mode of transportation and what they STILL want to know. Using the overhead projector or chalkboard, conduct a K-W-L-S analysis of all three modes of transportation with the entire class. Follow with a discussion. Which mode is easiest to use? How much and what kinds of things can each carry? How do they move from one place to another? What are the good and bad points? (Note: The first steam powered boat to come to St. Louis was the "Pike" in 1817.)





Lewis often preserved plant specimens he sent back to Washington, D.C. Try this preservation experiment. Take three leaves from the same plant. Write a description of each leaf. Place one leaf between two pieces of wax paper and then between two books. With the second leaf, dip it in rubbing alcohol and set it on wax paper. Leave the last leaf out to dry. The next day observe the three leaves. Record your observations. Which method of preserving plants preserves the specimen the best? How important is the initial description that goes along with the specimen?



EXPLORATION AND ENRICHMENT

Golden Spike National Historic Site in Utah and Steamtown National Historic Site in Pennsylvania tell the story of the railroad industry. Salem Maritime National Historic Site in Massachusetts and Chesapeake & Ohio Canal National Historical Park in Maryland focus on the history of water in trade and commerce. See the Appendix, page 38 for contact information. Have students draw pictures and write about their favorite type of transportation.



MATH



The keelboat that the expedition used from Wood River, Illinois (Camp DuBois) to Fort Mandan in North Dakota was 55 feet long. Using the metric system, have students calculate how many meters long the boat was.

ART AND MUSIC



The methods used for preserving animal specimens during that period involved toxic substances like arsenic. Create your own symbol that would warn people of the poison in the specimen.



PRE-VISIT ACTIVITY #3

(REQUIRED)



Did you know...

Lewis had intense scientific training before going on the expedition, and took along botany books to help identify plants.

MY FAMILY CAMPING TRIP

The Corps of Discovery had to do much planning prior to their departure from Wood River, Illinois on May 14, 1804. Men had to be recruited, the boats had to be built, food and supplies purchased, and some basic parts of the trip had to be planned ahead of time, so the journey would run smoothly as they made their way west.

CRITICAL THINKING AND COOPERATIVE LEARNING ACTIVITY

Divide your class into groups of six students equipped with pencil and paper. Have each student number off within groups, so that each student is a 1, 2, 3, 4, or 5 and a secretary. Have each group pretend they are a family preparing to take a camping trip. The secretary will be in charge of writing for the family. Make copies of the word web on the adjoining page for the secretary to use. Each "family" should think of the different types of things they will need for the camping trip. Corresponding to the numbered students, assign each member of the "family" one of the following questions to answer:

- Where will they sleep?
- What will they eat?
- How will the food be cooked?
- If cooking is done around a fire, what will be needed to make it and get it started?
- How will they travel to their camping location?

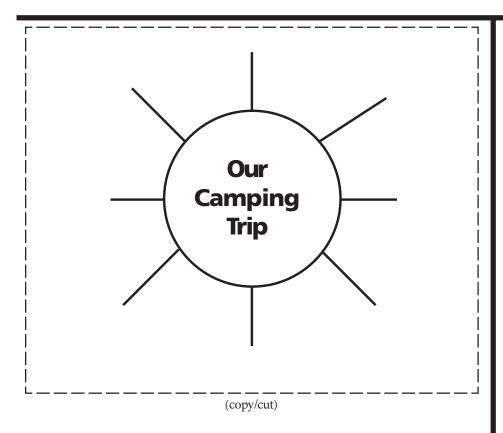
The secretary should write the ideas and answers on the word web. When all the "families" are finished planning their trip, they must make sure that every member of the family knows all of the details of their trip. Call out a number from 1 through 5 in each group and only that "family" member can present their "family" camping trip to the class.



MATH



If one person ate 8 lbs. of meat per day, how much meat (in lbs.) would the Corps (group of 33) have eaten in one (1) month? in 6 months? in 12 months? in 28 months?



INTERVIEWING ACTIVITY

Have each student in the class conduct an interview with a parent or grandparent about a vacation they took in the past. Find out and write down where the person traveled, how they traveled there, why they were going on a trip, and whether any unexpected problems happened during their trip. Remember these three bits of advice when taking a trip anywhere:

- (1) Be Prepared! (Boy Scout Motto)
- (2) "Better to have it and NOT need it, than NEED it and not have it."
- (3) "Expect the unexpected."

EXPLORATION AND ENRICHMENT

Before Meriwether Lewis was chosen as one of the leaders for the expedition, he served as President Thomas Jefferson's personal secretary. For more information on Lewis' journals and how the Corps of Discovery camped during the winter of 1805-1806, contact Fort Clatsop National Memorial See the Appendix, page 39. Have students compare their "family" camping trip to the Corps of Discovery.

SCIENCE



Lewis and Clark had no refrigerators or freezers to preserve their food. They dried fruits and meats or packed the meat in salt to preserve it for future use. When they ran out of salt, where could they get more? (Hint: It covers about two-thirds of the Earth's surface.) How would they obtain it?





THE MUSEUM EXPERIENCE



Did you know...

Pierre Cruzatte and George Gibson brought their fiddles along the journey? Their music entertained the group on many evenings.



TRAVELING WITH LEWIS AND CLARK

Upon arrival, register your group at the Information Desk, review Museum Manners with your students, and proceed to the entrance of the Museum of Westward Expansion. There you will meet the park ranger assigned to your program.

COOPERATIVE LEARNING ACTIVITY

Each student will randomly choose a name that will identify them as one of the members of the expedition. After each student takes a name, they will be placed into one of five groups. The ranger will then randomly choose a work task for each group, such as: hunting, transportation, shelter, clothing, and tribal relations. Each group will discuss their task and what they will need to do during the journey to make it a success. What are some of the "tools" they will need to accomplish their task, and how easy or difficult will their task be?

DEBRIEFING

The park ranger will further discuss and explain the importance of the work tasks.

INTERPRETIVE PROGRAM

Using the museum exhibits and photomurals, the park ranger will present an interpretive program focusing on the challenges, difficulties, and adventures that the expedition faced on their journey to the Pacific Ocean.





& LANGUAGE ARTS



Several members of the Corps of Discovery kept journals along the way. They recorded such information as the landforms, the latitude and longitude, and the weather. On the bus/car ride to the Museum of Westward Expansion, have your students write their observations. Have them describe the weather, streets traveled, and notable landmarks. What can your classroom explorers tell about their journey?

HANDS-ON OBJECTS

The park ranger will provide objects for your students to touch and smell.

VISUALS

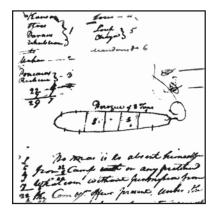
Mounted photographs, maps, and the museum photomurals will provide further multisensory exploration.

VOCABULARY WORDS

buckskin - the skin or hide from the male deer cordelling - a way of moving a boat upriver by pulling it with a rope *expedition* - an important journey or trip made for a specific purpose flintlock - a firing mechanism on a musket or a rifle that uses flint and steel to make a spark which in turn makes it fire the round lead bullet *fort* - a place where soldiers live and work

moccasins - shoes made out of animal skin, usually from a buffalo, elk

native - that which is or has to do with the place where one was born peace medal - a small minted medal given to the American Indians as a sign of alliance, token of friendship, or reward pirogue - a dugout canoe



EXPLORATION AND ENRICHMENT

The year 2004 is the 200th anniversary of the start of the Lewis and Clark Expedition. People are planning events along the route. Some events have already begun. See if your community is having an event. Plan a school Lewis and Clark Day. Have students research the musical instruments played on the journey and plan music. Investigate types of food they may have found and eaten along the trail. Have a tasting party. How else could you commemorate the expedition?

SCIENCE



The Lakota Sioux of the Great Plains had little wood for their campfires, so they depended on "fuel" from a source known as "Tatanka." Research and discover the English name of this source and the fuel it provided. (Hint: This animal was important to the American Indians.)





POST-VISIT ACTIVITY #1 (suggested)

FOLLOW THE RIVER DOWNSTREAM



As the Corps of Discovery began their journey back to St. Louis, most of the trip took them back down the Missouri River, this time flowing with the current. The maps they made on their way to the Pacific were used to lead them back across the mountains, over the Great Plains, and toward the source of the Missouri River, which was their "water highway" back home.

COOPERATIVE LEARNING ACTIVITY AND VENN DIAGRAM

William Clark was the expedition's cartographer, the producer of the maps. This was an important job since these maps would be used to guide others across the west. Clark mapped the trip using coordinates along the rivers and through the mountains.

Have students regroup into the SAME pairs from PRE-VISIT ACTIVITY #1 and review their neighborhood landmark maps. Join two groups of pairs to form groups of four students. Within each group, exchange maps, and with the help of an adult have students travel to each other's neighborhoods locating each other's homes, streets, and nearby landmarks. Compare the map to the actual landscape.

Copy and cut the Venn diagram on the following page and have the groups cooperatively work together to compare and contrast their neighborhoods. Make sure each member of the group is prepared to present their findings to the class. Randomly appoint a spokesperson from each group to share with the class.

SCIENCE

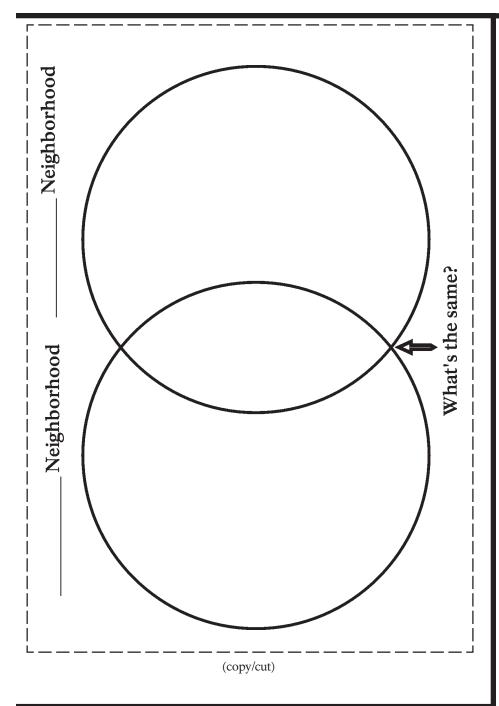


The detailed descriptions of the people and things Lewis and Clark encountered were critical to the success of the expedition. Write a detailed description of an animal familar to you. Now switch your description with a partner and see if he/she can guess the animal you described. How important was a detailed description of new plants/people/animals?

LANGUAGE ARTS



Pretend you are a person who is really on the Lewis and Clark Expedition. Write a letter to your family back home. Describe your experiences with the new plants, animals or people you might encounter during the expedition. How do you feel emotionally and physically? What do you miss?



EXPLORATION AND ENRICHMENT

Many historical sites in the United States are connected with the Lewis and Clark Expedition. Here are a few sites along the trail:

- Jefferson National Expansion Memorial, MO
- Knife River Indian Villages National Historic Site, ND
- Nez Perce National Historical Park, ID
- Fort Clatsop National Memorial, OR. Have students plan an imaginary vacation to these four sites along the Lewis and Clark National Historic Trail. For more information, see page 39 in the Appendix.

ART AND MUSIC



Create a diorama of a typical riverside camp that the expedition might have set up as they moved along the river. Include the boats, river, camp, and what the land and terrain might have looked like. Also include the animals that would live there that might provide food for the group.





POST-VISIT ACTIVITY #2 (suggested)



Did you know...

Sign language was vital to the expedition for communicating with the American Indians? And that Indian sign language was different than American Sign Language that is commonly used today to communicate with the hearing impaired and deaf? Learn some basic sign language and have each student spell out his or her name by signing it.





FLATBOATS, STEAMBOATS, AND WAGONS

After the Corps of Discovery traveled to the Pacific Ocean and back, they brought with them news of the sights they had seen and of the American Indians they met. Soon news spread about the large amount of beaver that were living in the mountains out west and people were eager to discover for themselves what "riches" they could find. The rush to settle the west was beginning, and the rivers and land could lead people there.



CONFLICT RESOLUTION ACTIVITY

Imagine yourself living back at the time when the Corps of Discovery took their trip. When they returned, you began hearing about all the new things they discovered on their journey. You are eager to head out west, but what opportunities would be open to you once you arrived? How might you travel to your destination? Divide the class into six different groups and assign one of the students of your class to be the moderator. Assign each group to one of the settlers on the following page. Each group should discuss their role, how it might affect the other settlers, and cooperatively work together to find a way to settle the west peacefully. As a result of your work, decide what effect each group would have on the land and on the American Indians already living there.

SCIENCE 🙅



& LANGUAGE ARTS



The scientific success of the expedition depended on the journals Lewis and Clark kept during their two year, four month journey. Encourage students to keep a journal or diary of their daily activities and life at home and at school. Stress the importance of written records in learning more about history and what it might mean to us later in life.

MATH



The Lewis and Clark National Historic Trail is 7,200 kilometers long one way. Have students calculate its distance in miles if one (1) kilometer equals 0.62137 miles.

CONFLICT RESOLUTION: WESTERN SETTLEMENT

GOLD MINER

I want to travel to the Dakota Territory or to California where I can mine for gold and hopefully find my fortune. "They say there's gold in them there hills!"

FARMER

I want to build a farm on I the Great Plains. They say there is plenty of "elbow room" out there. The soil is tough, but the land is cheap and there's a lot of it.

MOUNTAINMAN

Since those beaver top hats are in such demand these days, I want to become a trapper. I'll be able to live in the mountains, where I can be my own boss.

SOLDIER

My job is to protect people in the west where there is no police force. I'll be stationed at a fort on the Great Plains out in the middle of nowhere.

PIONEER

My family and I are loading everything we own into our prairie schooner wagon and planning to follow the Oregon Trail. Reports are that Oregon has plenty of fertile farm ground. They call it the land flowing with milk and honey.

COWBOY

Meat is scarce back east and up north. There are lots of jobs herding longhorns from Texas to Kansas, Nebraska, Wyoming and Missouri where they can be put on railroads and shipped.

EXPLORATION AND ENRICHMENT

During their journey, the Corps of Discovery encountered the animal "Ursus arctos horribilus" or grizzly bear. In 1804, grizzly bears were plentiful over the western half of North America. Today, the numbers of grizzly bears is much lower. Glacier National Park, Denali National Park and Preserve and Wrangell-St. Elias National Park and Preserve provide habitat for this endangered species. Contact these parks using the information found in the Appendix on page



LANGUAGE ARTS



There are many different places or things in the western part of the United States named by the members of the Lewis and Clark Expedition. Have students find some of the rivers, creeks, and towns that were named by or for the expedition. Have the school librarian help students find a variety of books.

ART AND MUSIC



Create a song where you describe an encounter with a new animal, for instance a grizzly bear.



POST-VISIT ACTIVITY #3 (suggested)



Did you know...

On September 10, 1804 on Cedar Island, in South Dakota, William Clark discovered the fossilized remains of the ribs, backbone and teeth of a plesiosaur. Plesiosaurs were animals who lived at the same time as the dinosaurs, but swam rather than walking on land. Clark thought he had found the 45 foot backbone of a giant fish!

Photo used with permission. British Journal for the History of Science, vol. 28, page 268, 1995.

MY FAMILY FOLLOWS THE CORPS OF DISCOVERY

As the Corps of Discovery slowly traveled across the Great Plains, through the Rocky Mountains, and down the rivers to the Pacific Ocean, they stopped to pick a spot to make camp at the end of each day. It was a continual camping trip from beginning to end over a two and a half year period, except when they stopped for the winter and built forts for shelter.

COOPERATIVE LEARNING MAPPING ACTIVITY

Divide your class into the same "family" groups they were in for MY FAMILY CAMPING TRIP in PRE-VISIT ACTIVITY #3. Make copies of the map of the United States provided in the Appendix, page 41 and give each "family" a copy. With the help of state maps in an atlas or with a classroom "pull-down" map, have each of the "families" locate the following important Corps of Discovery stops and camping spots. Each "family" member should locate two of the sites and the secretary should mark each location with the corresponding number that is next to it. As in PRE-VISIT ACTIVITY #3, use the "Numbered-Heads Approach" to call a number from each group and share their findings with the entire class.

- 1. Camp DuBois (Wood River, Illinois-near the confluence of the Mississippi and Missouri Rivers)
- 2. St. Charles, Missouri
- 3. Floyd's Bluff (Sioux City, Iowa)
- 4. Fort Mandan (NW of Bismarck, North Dakota) at Stanton
- 5. Great Falls, Montana
- 6. Three Forks, Montana
- 7. Rocky Mountains-Bitterroot Range (Idaho-Montana)
- 8. Clearwater River (near Orofino, Idaho)
- 9. Columbia River (between Washington and Oregon)
- 10. Fort Clatsop (near Astoria, Oregon)





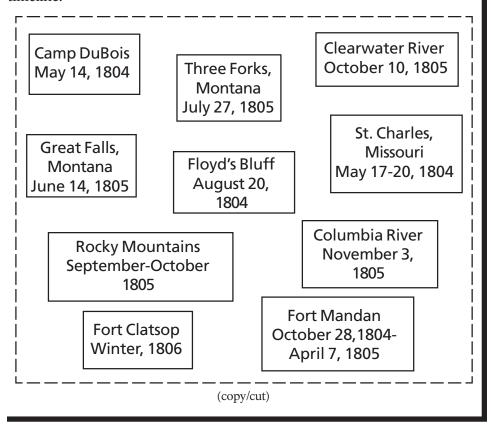
SCIENCE



Create a fossil cast! Set a turkey leg bone out overnight to dry. Press the bone into some clay; discard the bone. Then pour some plaster of Paris into the mold and let set to dry overnight. The next day remove the clay from around the mold. You will discover your new fossil!

TIMELINE ACTIVITY

We know where the members of the expedition traveled and what they did on a daily basis by reading the daily entries in their journals. Just about every evening after they had stopped for the day and made camp, Meriwether Lewis and William Clark wrote down information about the day's trip and activities. Have each group create a timeline of the journey using the places and dates in the boxes below. Copy and cut the graphic below (one for each group). Each group may then use the boxes and information to create their own timeline. Encourage students to include drawings, magazine or catalog clippings which represent those places and/or events that would have happened there. Consult a relief map of the United States to get an idea of the topography and locations that you will include with your timeline.



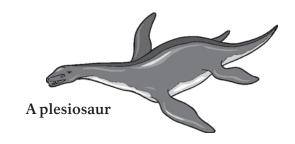
EXPLORATION AND ENRICHMENT

Dinosaur National Monument in Utah provides the opportunity to view and study dinosaur bones. The fossils here were first discovered in 1909 by paleontologist Earl Douglass. Today visitors can view the 1,500 fossil bones found in the rock wall within the visitors center. Contact information is found on page 40 in the Appendix.

MATH



The dinosaur bones that Clark found were 45 feet long. If one (1) meter is equal to 3.3 feet, how many meters long would the dinosaur have been?

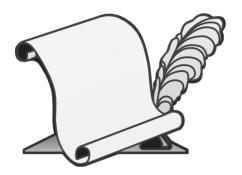




Secretary - a person who is in charge of records and correspondence for an organization or company. Many different types of places, such as doctor's offices, stores, corporations, and companies have secretaries to handle a lot of the business, paperwork and office information. Talk with your school secretary and find out what types of duties he or she performs every day to keep your school running smoothly.

ON THE EXPEDITION

Captain Lewis was Thomas Jefferson's personal secretary before the journey! He also kept meticulous notes to send to Thomas Jefferson while on the expedition. What types of information was recorded and then sent to Thomas Jefferson?





NATIONAL PARK CAREERS

A career as a National Park Service secretary can be challenging. A National Park Service secretary is not always visible to the public but plays an important role within the organization. He/she works to keep the park organized by preparing letters concerning park business, responding to visitor inquiries, filing information, and keeping records accurate and up to date.

AT JEFFERSON NATIONAL EXPANSION MEMORIAL

The secretaries at the Old Courthouse work hard to make sure that business and visitor paperwork are completed on time and efficiently. They also type, file, make inventories, and record information that has been sent to the park or will be sent to other places of business.



Maintenance worker - a person who builds, repairs, and maintains a building, a lawn, a heating system, etc.

ON THE EXPEDITION

Workers were needed on the expedition to maintain the structures at both Fort Mandan and Fort Clatsop. Have students name five types of tools a maintenance worker would need to do his or her job. Have each student draw their five choices and then explain how each tool is used or what it is used for.





NATIONAL PARK CAREERS

One of the most visible roles in the national parks is that of a maintenance worker. These people are responsible for keeping the park looking nice by mowing the grass, fixing the roads, and making sure the buildings are comfortable, clean and safe. They must be able to work outside in all types of weather, and be able to do carpentry, painting, electrical and plumbing work.

AT JEFFERSON NATIONAL EXPANSION MEMORIAL

The maintenance people who work at the Gateway Arch and the Old Courthouse are responsible for many different types of things, including: the heating and air conditioning systems so everyone will stay comfortable inside; keeping the grounds (trees and grass) looking good; and keeping the restrooms in working order for the three million (or more) visitors we have in the park each year.



Tram mechanic - a person who fixes, maintains, and repairs the transportation system (tram) that takes visitors to the top of the Gateway Arch.

ON THE EXPEDITION

The word *mechanic* in the 18th century referred to a blacksmith, a person who makes or fixes iron things, or a carpenter, someone who builds and repairs wooden items. Privates John Shields and Private Alexander Willard were blacksmiths for the Corps, repairing various items along the way. Sergeant Gass served as carpenter, using his skills with wood to produce useful items.



NPS Photo

NATIONAL PARK CAREERS

In the National Park Service, mechanics maintain elevators in historic buildings and monuments, keep vehicles running at optimum efficiency, and assist with environmental fuel usage. Mechanics do much to keep all forms of transportation moving across the country.

AT JEFFERSON NATIONAL EXPANSION MEMORIAL

Our park tram mechanics are also skilled electricians who have knowledge of elevators, escalators, and other people-moving devices. Before the trams take people up and down the Gateway Arch each morning, the tram mechanics inspect the rails, cables, and tram cars to make sure they are safe and in proper working order. These trams were designed specifically for the Gateway Arch so there are only two (north tram and south tram) in the world.

NPS Photo

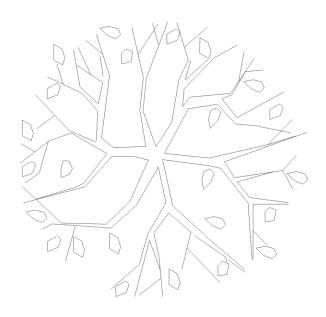


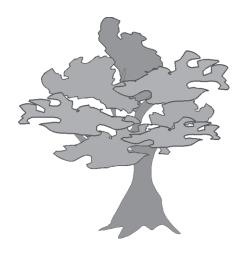


Landscape architect - a person who creates landscape plans for natural areas around buildings, homes, communities, and parks. Many places, including national parks, use landscape architects to help them plan how different areas will look. Golf courses, amusement parks, and individual homeowners might hire landscape architects to plan surrounding layouts for their special needs. Good landscaping can make some places more attractive, help cut down on "noise pollution," and provide good water drainage when it rains. What is the landscape like around your school and how could it be improved?

ON THE EXPEDITION

People who were creative and had an eye for detail were needed to map out the areas (landscape) that the expedition traversed. As a class, create a map layout of your school. Draw the arrangement of various size trees and shrubs around the school.





NATIONAL PARK CAREERS

One of the many careers available with the National Park Service is a landscape architect. This person is artistic, good with maps, and knowledgeable in botany (the study of plants), so they can recommend suitable plants for different types of landscapes. A career as a National Park Service landscape architect is challenging work for those who like planning, details, art, plants and mapping.

AT JEFFERSON NATIONAL EXPANSION MEMORIAL

Dan Kiley was the landscape architect for the original design of the Arch grounds, complimenting the work of Eero Saarinen. The landscape has trees to represent the forests of the west and open spaces representing the prairies. In the 1990s, a landscape architect researched the history of the landscape of the park, provided direction for future needs, and cooperated with our grounds maintenance crew.



CHARACTER EDUCATION

CHARACTER COUNTS

While traveling together over twenty-eight months, the members of the Corps of Discovery had differences that had to be resolved for the Expedition to be successful. The disagreements among community members may have seemed large or small, depending on the person or persons affected.

Knowing how to discuss differences before they become problems is an important ability. It involves active listening and thinking before speaking. These talents are not limited to disagreements. They can also benefit friendships and enrich classroom discussion.

In the following exercise, students will practice these skills. Divide students into groups of three. For each scenario, each student will have a different role. One student is the observer, a second student is the describer of the action, and the third is the doer of the action. The observer writes when he/she sees active listening and clear speaking. The describer will be the one who has a problem with what is happening. The doer will be the person who causes the action.

The students will read the scene, and then the describer will begin. After they discuss the issue, the observer tells the other two students what was done well. Then the roles change. The describer becomes the doer, the doer becomes the observer, and the observer becomes the describer. At the end, have students brainstorm about where this process may be useful in their lives.

- **%** Sergeant Gass left things lying around the camp area that everyone shares. It bothers Sergeant Ordway that Gass' stuff seems to be invading the group space.
- **X** Toussaint Charbonneau's voice is loud. Pierre Cruzatte notices that when Charbonneau starts talking, it becomes very hard to hear others.
- >Joseph Field was careful about using his bullet supply since he knew resources were limited on the Expedition. His brother Reubin seemed to shoot randomly, so that his shot would miss and he would lose the bullet.



MULTIPLE INTELLIGENCES



This intelligence relies on the sense

Visual/Spatial Intelligence

of sight and being able to visualize an object and the ability to create

internal mental images/pictures.

Logical/Mathematical Intelligence E=MC²

Often called "scientific thinking" numbers and the recognition of deductive thinking/reasoning, this intelligence deals with abstract patterns.

Verbal/Linguistic Intelligence

Related to words and language form of intelligence dominates both written and spoken. This most Western educational systems.



Intrapersonal Intelligence

awareness of spiritual realities. reflection, metacognition (i.e. thinking about thinking) and This intelligence relates to inner states of being, self-





NTELLIGENCES MULTIPLE

WAYS OF KNOWING



Body/Kinesthetic Intelligence

Related to physical movement the body, including the brain's and the knowings/wisdom of motor cortex which controls bodily motion.



Musical/Rhythmic Intelligence

environmental sounds and on a This intelligence is based on the sensitivity to rhythm and beats. recognition of tonal patterns, including various



Naturalist Intelligence

and show sensitivity to features in The ability to identify and classify discriminate among living things, configurations in nature, the natural world.





nterpersonal Intelligence

communication. It relies on all the primarily through person-to-This intelligence operates person relationships and other intelligences.





PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags-Tribal Friends Team**

Meriwether Lewis I was born in Virginia in 1774. I was a personal secretary to President Thomas Jefferson. He chose me to lead the expedition to the Pacific Ocean and back. I will bring peace medals, beads, and other gifts of friendship to the American Indians. Tribal Friends Team	After the expedition, I was the governor of the Upper Louisiana Territory. I died a strange death in 1809. Some say I was killed. Some say I shot myself.
Nathaniel Hale Pryor I was born in Virginia in 1772. I moved to Kentucky in 1783 with my parents. My cousin Charles Floyd is also on the expedition. We are both sergeants and will lead the men on the expedition and make friends with the American Indians. Tribal Friends Team	After the expedition, I joined the army and fought in the War of 1812. I then went west to what is now Oklahoma and became an Indian trader. I married an Osage woman and died in 1831.
Pierre Cruzatte I don't know the year I was born. I am half- French and half-Omaha Indian, and speak French and Omaha. I am blind in one eye and play the fiddle. My music will make everyone happy, including the Indians, and we will dance to it at Christmas and New Year's. Tribal Friends Team	After the expedition, I became a fur trader, and was killed by Indians before 1828.



PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Tribal Friends Team** (continued)

George Drouillard	George	Drou	ıillard
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I was born in Canada about 1773. My father was French and my mother was Shawnee Indian. I speak French, Shawnee, and Indian sign language. I will be helpful in making friends with the Indian people. I am also good at hunting.

Tribal Friends Team

After the expedition, I worked for Manuel Lisa, a fur trader in St. Louis. I was killed by Blackfeet Indians in 1810.

François Labiche

I am French, Omaha Indian, and African American. I am an Indian trader and speak French and Omaha. I will be helpful in making friends with the American Indians. I joined the expedition in St. Charles, near St. Louis.

Tribal Friends Team

After the expedition, I went to Washington, D.C. with Captain Lewis and the Mandan Chief Big White. Later I lived near St. Louis and raised seven children.

Sacagawea

I am a Shoshone Indian girl. I was kidnapped by Hidatsa Indians. Then I married a French trader named Toussaint Charbonneau. We joined the expedition because we speak French, Shoshone, and Hidatsa. We will help make tribal friends. I will also help trade for horses and find food and medicine.

Tribal Friends Team

After the expedition, we took our four year old son, Jean Baptiste, to St. Louis. We had him baptized at the Old Cathedral and left him with William Clark to attend school. I missed my baby boy, but schooling will give him a good life. I caught a fever and died in 1812.



PRE-VISIT ACTIVITY #1 (REQUIRED) Nametags - Tribal Friends Team (continued)

Toussaint Charbonneau I was born in Canada about 1758. I lived with the Hidatsa Indian people and learned their language. I married a Shoshone girl named Sacagawea. We joined the expedition, because we speak languages that will help make tribal friends. Tribal Friends Team	After the expedition, I worked for the Indian Bureau. I died sometime after 1839, still living on the upper Missouri River.
Jean Baptiste Charbonneau I will be born on the expedition on February 11, 1805. I am American Indian and French Canadian. My parents are Sacagawea and Toussaint Charbonneau. Seeing a mother with a little baby like me will help make friends with American Indian people. Tribal Friends	After the expedition, I went to school in St. Louis, lived in Germany with a prince, and became a mountainman, guide and gold miner. Thanks to a good education, I lived a very good life. I died in 1866 in Oregon.
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PRE-VISIT ACTIVITY #1 (REQUIRED) Nametags - Food Team

William Clark I was born in Virginia in 1770. Meriwether Lewis and I are good friends. He asked me to lead the expedition with him. On the trip, we will celebrate my birthday and eat venison, elk, beavertail, cherries, plums, raspberries, currants, and grapes. At Christmas, we will eat dried apples. Food Team	After the expedition I was governor of the Missouri Territory. I watched over Jean Baptiste Charbonneau while he went to school in St. Louis. I died in 1838 and was buried in Bellefontaine Cemetery in St. Louis
John Colter I was born in Virginia in 1774. As a boy my family moved to Kentucky. I joined the expedition because I am good at hunting animals. I will also hunt for wild berries and nuts to eat. Food Team	Near the end of the expedition I left to become a fur trapper. I worked for Manuel Lisa, a fur trader from St. Louis. I was the first non-Indian to see what is now Yellowstone National Park. I died in Missouri in 1813.
Joseph Field I was born in Virginia in 1772. My family moved to Kentucky when I was very young. My brother and I joined the expedition because we are good hunters and we will need lots of meat to eat. We will eat buffalo, deer, elk, rabbit, horse, and dog. Food Team	After the expedition, I settled in Kentucky and got married. I died in 1823.



PRE-VISIT ACTIVITY #1 (REQUIRED) Nametags - Food Team (continued)

Reubin Field I was born in 1771 and am one year older than my brother Joseph. We joined the expedition in Kentucky. We are two of the best hunters on the expedition, but when we cross the mountains no food will be found. Captain Lewis will want us to eat portable soup, but we'd rather eat a horse. Food Team	I died less than a year after the expedition ended.
George Gibson I was born in Pennsylvania. I joined the expedition in Kentucky. I am a good hunter. I also play the fiddle, but not as good as Pierre Cruzatte. I also know Indian sign language and will trade with the Indians for vegetables. The Mandan people will give us corn. Food Team	After the expedition, I died in St. Louis in 1809.
Silas Goodrich I am a soldier from Massachusetts. One thing that I like to do, and one thing I am good at, is fishing. I love flat fish, scaly fish, crawfish, trout, perch, pike, bass, codfish—any kind of fish you can name. I love to eat them and I love to fish for them. The Missouri River has lots of fish. In just one day, we will catch 709 fish! Food Team	After the expedition I stayed in the army. I died sometime before 1828.



PRE-VISIT ACTIVITY #1 (REQUIRED) Nametags - Food Team (continued)

John Potts I was born in Germany in 1776. I was a miller, which means I ground grain to make flour. I joined the expedition in Tennessee. The Shoshone Indians will give us bread made from ground lambsquarter, sunflower seeds and berries. The Nez Perce Indians will give us bread made from camas roots, which look like onions, but are sweet. Food Team	
George Shannon I was born in 1785 in Pennsylvania. I joined the expedition for adventure. The Chinook Indians will give us dog meat to eat. They will also give us wapato roots and dried salmon. Most of us will prefer to eat roasted dog. Food Team	After the expedition I lost a leg in a battle with Indians. Later I studied hard and worked as a lawyer. I died in Missouri in 1836.
Seaman I was born about 1802 in Pennsylvania. Meriwether Lewis paid \$20 for me. I will help the expedition as a hunter and watchdog. I will bring in many squirrels and rabbits. The men will love me. When the men are starving, they will eat dog meat from the Indians, but won't eat me. I will travel all the way to the Pacific Ocean and back. Food Team	 When my master died in 1809, I refused to eat and died lying on top of his grave.



PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Transportation Team**

Sergeant John Ordway I was born in New Hampshire in 1775. I was the only sergeant to come from the regular army. I will help lead the men. I joined the expedition at Fort Kaskaskia, Illinois. I will keep a journal of each day of the expedition. Transportation Team	After the expedition, I went with Captain Lewis and a party of Indians to Washington, D.C. Later, I returned to Missouri and got married. My wife and I both died by 1817.
Robert Frazer I am a soldier from Virginia. I will keep a journal of the expedition, but it will get lost! One of my maps will be found. I am strong and can row a boat. Transportation Team	After the expedition, I lived in Missouri and died in 1837.
Hugh Hall I was born about 1772 in Pennsylvania. I joined the army in 1798. I am strong and can row a boat. The expedition needs strong men. On the expedition I will drink too much whiskey and get into trouble. There was no D.A.R.E. program back then. I wish I'd known to "Just say no". Transportation Team	After the expedition, I lived in the St. Louis area, but after that no one knows what happened to me.



PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Transportation Team** (continued)

Thomas Proctor Howard I was born in Massachusetts in 1779. I joined the army in 1801. I am very strong and will climb the wall of Fort Mandan. The expedition will need strong men to pull the boats around the waterfalls. Transportation Team	
Hugh McNeal I was born and raised in Pennsylvania. I was in the army when I joined the expedition. I am strong and can row a boat. I am also good at walking a long way and riding horses. Transportation Team	After the expedition, not much is known about me. I died sometime before 1828.
John B. Thompson I am from Indiana. I work as a surveyor. I am really good at measuring the size and shape of the land and rivers. I will be helpful in making maps. Transportation Team	After the expedition, Captain Clark listed me as "killed" by 1828.



PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Transportation Team** (continued)

Peter Weiser I was born in Pennsylvania. I became a soldier and joined the expedition. I am really strong, can walk a long way and ride horses. I am also good at rowing boats. Transportation Team	After the expedition, I went to the far west with the St. Louis fur trader Manuel Lisa. I was killed before 1828, most likely in a fight with Indians.
Richard Windsor I am a soldier and can walk a long way. On the expedition we will walk through thorny cactus, snow, and mountains. Transportation Team	After the expedition, I settled in Missouri. I rejoined the army until 1819, then lived in Illinois.
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PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Clothing and Shelter Team**

Patrick Gass I was born in Pennsylvania in 1771. My father taught me to be a carpenter. I will be very helpful to the expedition. I will build our boats and our forts. I will also keep a daily journal of our travels. Clothing and Shelter Team	After the expedition, I published my journal so everyone could read about our trip. I married at the age of 60 and had seven children. I was the last known survivor of the expedition when I died in 1870.
William Bratton I was born in Virginia in 1777. I moved to Kentucky. On the expedition, I will help as a blacksmith, making parts for our boats and forts. I will also make shoes for our horses. Clothing and Shelter Team	After the expedition, I married in 1819 and lived in Indiana. I died in 1841 at the age of 63.
John Collins I was born in Maryland. I joined the army, then the expedition. I'm not a very good character. On the expedition, I stole a hog and whiskey. I also did not always obey orders. I wish that I'd been honest, and obeyed the captains. I'd be a better person today. They would not have whipped me so much. Clothing and Shelter Team	After the expedition, I signed up to trap furs with St. Louis trader William Ashley. Arikara Indians attacked us and I died in what is now South Dakota.



PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Clothing and Shelter Team** (continued)

John Shields I was born in Virginia in 1768, then my family moved to Tennessee. I joined the expedition in Kentucky. I am a blacksmith, gunsmith, and carpenter. I work hard and do good work. On the expedition, I will be very helpful in building our forts, repairing our guns, and making shoes for our horses. Clothing and Shelter Team	After the expedition, Captain Lewis asked Congress to pay me a bonus for the good work I did. I died in Indiana in 1809.
William Werner I joined the expedition in Kentucky. I will help build our forts. Our boots and clothes will wear out. We will make moccasins and clothes out of animal skins. The cactus will stick right through them. To save our feet, we will sew double soles on our moccasins. Clothing and Shelter Team	After the expedition, William Clark believed that I returned to the east to live in Virginia. Nothing more is known about me.
Joseph Whitehouse I was born in Virginia in 1775. When I was a little boy, my family moved to Kentucky. Then I joined the army. At Fort Kaskaskia in Illinois, I joined the expedition. I am really good at tailoring clothes and will help the other men sew their clothes. I will keep a journal on most of our trip. Clothing and Shelter Team	After the expedition, I rejoined the army, served in the War of 1812, and deserted in 1817. Nothing else is known about me.



PRE-VISIT ACTIVITY #1 (REQUIRED) **Nametags - Clothing and Shelter Team** (continued)

Alexander Hamilton Willard I was born in New Hampshire in 1778. I moved to Kentucky by 1800. I joined the army and then the expedition. I am a blacksmith and will help make parts for our forts and guns. Clothing and Shelter Team	After the expedition, I married and had 12 children. In 1852 I took my family in a covered wagon to California. I died in 1865 at the age of 87.
York I was born in Virginia about 1770. I am William Clark's slave and will serve him well. I am very strong and will help build our forts. The Indians will like me and try to rub my skin to see if the black comes off. Clothing and Shelter Team	After the expedition, I asked my master for my freedom. In 1811, I was freed and joined my wife and family in Kentucky. I started my own business. I died sometime before 1832.
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PRE-VISIT ACTIVITY #1 Exploration and Enrichment

For more information on this park, contact:

Yellowstone National Park P.O. Box 168 Yellowstone National Park, WY 82190 (307) 344-7381 Fax (307) 344-2005 www.nps.gov/yell

PRE-VISIT ACTIVITY #2 Exploration and Enrichment

For more information on these parks, contact:

Golden Spike National Historic Site P.O. Box 897 Brigham City, UT 84302-0897 (485) 471-2209 Fax (435) 471-2341 www.nps.gov/gosp

Steamtown National Historic Site 150 South Washington Ave. Scranton, PA 18503-2018 (570) 340-5200 Fax (570)340-5235 www.nps.gov/stea

Salem Maritime National Historic Site 174 Derby Street Salem, MA 01970 (978) 740-1650 Fax (978) 740-1685 www.nps.gov/sama

Chesapeake and Ohio Canal National Historical Park C & O Canal NHP Headquarters P.O. Box 4 Sharpsburg, MD 21782 (301) 739-4200 Fax (301) 739-5275 www.nps.gov/choh



PRE-VISIT ACTIVITY #3 Exploration and Enrichment

For more information on this park, contact:

Fort Clatsop National Memorial 92343 Fort Clatsop Rd. Astoria, OR 97103-9197 (503) 861-2471 Fax (503) 861-2585 www.nps.gov/focl

POST-VISIT ACTIVITY #1 Exploration and Enrichment

For more information on these parks, contact:

Jefferson National Expansion Memorial 11 North 4th Street St. Louis, MO 63102 (314) 655-1700 Fax (314) 655-1735 www.nps.gov/jeff

Knife River Indian Villages National Historic Site P.O. Box 9 Stanton, ND 58571-0009 (701) 745-3300 Fax (701) 745-3708 www.nps.gov/knri

Nez Perce National Historical Park Route 1, Box 100 Highway 95 South Spalding, ID 83540-9715 (208) 843-2261 Fax (208) 843-2001 www.nps.gov/nepe

Lewis and Clark National Historic Trail **National Park Service** 1026 Dodge Street Ford Warehouse Building Omaha, NE 68102 (402) 514-9311 Fax (402) 827-9108 www.nps.gov/lecl



POST-VISIT ACTIVITY #2 Exploration and Enrichment

For more information on these parks, contact:

Denali Park and Preserve Superintendent's Office P.O. Box 9 Denali Park, AK 99755 (907) 683-2294 Fax (907) 683-9617 www.nps.gov/dena

Wrangell-St. Elias National Park and Preserve 105.5 Old Richardson Highway P.O. Box 439 Copper Center, AK 99573 (907) 822-5234 Fax (907) 822-7216 www.nps.gov/wrst

Glacier National Park Park Headquarters West Glacier, MT 59936 (406) 888-7800 Fax (406) 888-7808 (TDD) (406) 888-7806 www. nps.gov/glac

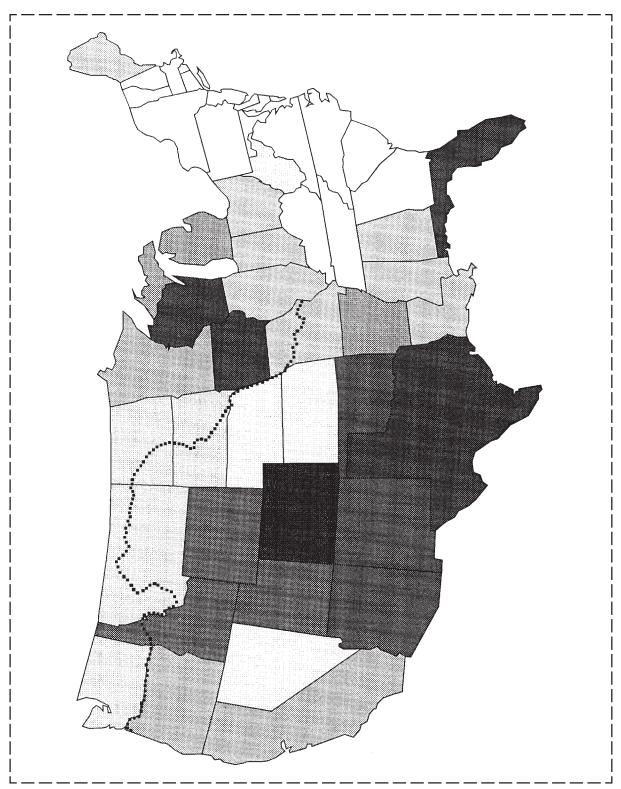
POST-VISIT ACTIVITY #3 Exploration and Enrichment

For more information on this park, contact:

Dinosaur National Monument 4545 Highway 40 Dinosaur, CO 81610-9724 (970) 374-3000 Fax (970) 374-3003 www.nps.gov/dino



POST-VISIT ACTIVITY #3 CRITICAL THINKING/COOPERATIVE LEARNING



(copy/cut)



PARK RANGERS RECOMMEND THESE BOOKS

For Students:

Blumberg, Rhoda. The Incredible Journey of Lewis and Clark. New York: Lathrop, Lee and Shepard Books, 1987.

Cobblestone Magazine - The History Magazine for Young People. The Lewis and Clark Expedition 1804-1806. September 1980, Volumes #1 - #9.

McGrath, Patrick. The Lewis and Clark Expedition, Turning Points in American History. Morristown, New Jersey: Silver Burdett Company, 1985.

Murphy, Dan. Lewis and Clark: Voyage of Discovery. Las Vegas, Nevada: KC Publications, 1977.

For Teachers:

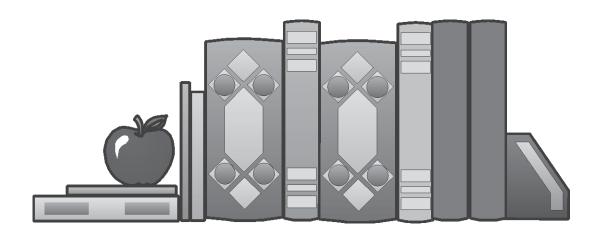
Betts, Robert B. In Search of York: The Slave Who Went to the Pacific Ocean with Lewis and Clark. Boulder: Colorado Associated University Press, 1985.

Cutright, Paul R. Lewis and Clark: Pioneering Naturalists. Urbana: University of Illinois Press, 1969.

DeVoto, Bernard. The Course of Empire. Boston: Houghton Mifflin, 1952.

Lavender, David. The Way to the Western Sea. New York: Harper and Row, 1988.

Moulton, Gary E. ed. The Journals of the Lewis and Clark Expedition. Lincoln: University of Nebraska Press, 1983.





ADDITIONAL RESOURCES

Traveling Trunk



Museum Gazettes



Lewis and Clark Jefferson National Expansion Memorial 11 North Fourth Street St. Louis, MO 63102-1810 (314) 655-1635

"The Louisiana Purchase"

"William Clark: The Red-Headed Chief"

"Exploration with a Microscope:

The Great Western Geological Surveys" "Sacagawea and Her Prismatic Story" Jefferson National Expansion Memorial 11 North Fourth Street St. Louis, MO 63102-1810

(314) 655-1600

Site Bulletin



"The Lewis and Clark Expedition" Jefferson National Expansion Memorial 11 North Fourth Street St. Louis, MO 63102-1810 (314) 655-1600

NPS Brochure



"Lewis and Clark Trail" Lewis and Clark National Historic Trail 1709 Jackson Street Omaha, NE 68102 www.nps.gov/lecl (402) 514-9311

Internet



See our special web pages on Lewis and Clark and an online Curriculum Guide. Our address on the World Wide Web is: www.nps.gov/jeff

Jefferson National Expansion Memorial 11 North Fourth Street St. Louis, MO 63102-1810 (314) 655-1600

For more information on the National Park Service, visit their home page at: www.nps.gov